WATER MANAGEMENT PLAN

CARPINTERIA VALLEY WATER DISTRICT

July 2012

Prepared for:
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Bureau of Reclamation
Mid Pacific Region
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RESOLUTION NUMBER 953

RESOLUTION OF THE BOARD OF DIRECTORS OF THE CARPINTERIA VALLEY WATER DISTRICT (CVWD) ADOPTING A WATER MANAGEMENT PLAN

WHEREAS, Section 210 of the Reclamation Reform Act of 1982 requires districts with repayment or water supply contracts to develop and maintain water conservation plans containing definite goals, appropriate water conservation measures, and time schedules for meeting conservation objectives; and

WHEREAS, CVWD is a federal water contractor by its Member Unit Contract with the Santa Barbara County Water Agency, which in turn has a Master Contract with the United States Department of the Interior, Bureau of Reclamation (USBR); and

WHEREAS CVWD developed and adopted a Water Conservation Plan on December 15, 1993 consistent with the requirements of USBR; and

WHEREAS CVWD revised and updated its Water Conservation Plan consistent with USBR's 1999 Criteria for Evaluating Water Management Plans and prepared a Water Management Plan dated December 2000; and

WHEREAS CVWD revised and updated its Water Management Plan dated December 2000 consistent with USBR requirements in the 2008 Standard Criteria;

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

The 2010 Water Management Plan dated July 2012 is hereby adopted.

PASSED, APPROVED AND ADOPTED by the Board of Directors of the Carpinteria Valley Water District on the 24th day of October, 2012 by the following roll call vote:

AYES: LIEBERKNECHT, OROZCO, ROBERTS, VAN WINGERDEN
NAYES: NONE
ABSENT: NONE
ABSTENTIONS: NONE

[SEAL]

APPROVED:

June Van Wingerden, Board President

ATTEST:

Charles B. Hamilton, Board Secretary

Index

Section 1: Description of the District

District Name: Carpinteria Valley Water District

Contact Name: Bob McDonald

Title: District Engineer

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Web Address: www.cvwd.net

A. History

1. Date District formed: 1941 *Date of first Reclamation contract*: 1949

Original size (acres): 8,704 *Current year (last complete calendar year)*: 2010

2. Current size, population, and irrigated acres:

	2010
Size (acres)	11,300
Population served	18,685
Irrigated acres	3,213

3. Water supplies received in current year:

Water Source	*AF*
Federal urban water (Tbl 1)	1,649
Federal agricultural water (Tbl 1)	1,509
State water (Tbl 1)	0
Other Wholesaler (define) (Tbl 1)	0
Local surface water (Tbl 1)	0
Upslope drain water (Tbl 1)	0
District ground water (Tbl 2)	742
Banked water (Tbl 1)	0
Transferred water (Tbl 6)	0
Recycled water (Tbl 3)	0
Private ground water (Tbl 2)(a)	0
Total	**3,899**

Note:
Data subject to rounding.
(a) The District does not directly receive private ground water.

4. Annual entitlement under each right and/or contract:

	AF	*Source*	*Contract #*	*Availability period(s)*
USBR Urban AF/Y	1,463	Cachuma	I75r-1802	No limits
USBR Agriculture AF/Y	1,350	Cachuma	I75r-1802	No limits
State DWR AF/Y	2,000	SWP	09702	No limits

There are no known contractual limits for availability period(s). However, there may be periods when water is not be available due to legal, environmental, and delivery issues.

5. Anticipated land-use changes:

The District may annex property associated with a proposed tank site, however the location and amount of land is unknown at this time. The District forecasts a gradual change in the agricultural and urban uses. Total planted and harvested acreage for irrigated crops with the District is projected to decrease annually by one percent. The acreage decreases will be attributable to urban development and increased farm operational costs and decreased profitability for farmers.

6. Cropping patterns (Agricultural only):

List of current crops (crops with 5% or less of total acreage can be combined in the 'Other' category:

Original Plan (1986)(a)		*Previous Plan (2000)*		*Current Plan (2010)*	
Crop Name	*Acres*	*Crop Name*	*Acres*	*Crop Name*	*Acres*
Avocados	1,862	Avocados	1,834	Avocados	1,849
Lemons	266	Lemons	214	Lemons	207
Nursery (open)	652	Nursery (open)	538	Nursery (open)	415
Nursery (covered)	381	Nursery (covered)	429	Nursery (covered)	370
Fruit trees	248	Fruit trees	260	Fruit trees	185
				Field	141
Other (<5%)	119	Other (<5%)	0	Other (<5%)	46
Total	3,528	*Total*	3,275	*Total*	3,213

Note: (a) Based on 1969 Data.

7. Major irrigation methods (by acreage) (Agricultural only):

Original Plan (1986)(a)		*Previous Plan (2000)*		*Current Plan (2010)*	
Irrigation Method	*Acres*	*Irrigation Method*	*Acres*	*Irrigation Method*	*Acres*
Overhead sprinklers	1,500	Drip	2,586	Sprinkler	1,987
Fixed sprinklers	1,455	Mini-spray	429	Low Volume	973
Hand move sprinklers	315			Hand watering	207
Other		Other	260	Other	46
Total	3,270	*Total*	3,275	*Total*	3,213

Note: (a) Based on 1969 Data.

B. Location and Facilities

See Attachment A for points of delivery, turnouts (internal flow), and outflow (spill) points, measurement locations, conveyance system, storage facilities, operational loss recovery system, wells, and water quality monitoring locations.

1. Incoming flow locations and measurement methods:

Location Name	*Physical Location*	*Type of Measurement Device*	*Accuracy*
Boundary	District boundary at South Coast Conduit	Meter	+/- 0.5%
Well	Headquarters Facility at District Yard	Meter	+/- 0.5%

2. Current year Agricultural Conveyance System:

Miles Unlined - Canal	*Miles Lined - Canal*	*Miles Piped*	*Miles - Other*
NA	NA	NA	NA

3 Current year Urban Distribution System:

Miles AC Pipe	*Miles Steel Pipe*	*Miles Cast Iron Pipe*	*Miles - Other*
40.12	31.73	NA	6.29

4. Storage facilities (tanks, reservoirs, regulating reservoirs)

Name	*Type*	*Capacity (AF)*	*Distribution or Spill*
Shepard Mesa	Steel tank	0.15	Distribution
Carpinteria	Reservoir	44.66	Distribution
Gobernador	Reservoir	1.53	Distribution

5. Outflow locations and measurement methods (Agricultural only):
NA

6. Description of the agricultural spill recovery system:
NA

7. Agricultural delivery system operation (check all that apply)

On-demand	*Scheduled*	*Rotation*	*Other (describe)*
X			

8. Restrictions on water source(s)

Source	*Restriction*	*Cause of Restriction*	*Effect on Operations*
USBR-Cachuma	Limitation and release requirements on Cachuma Project water diversions	SWRCB – Order #WR 89-18	Yield of Cachuma Project limited to level below scheduled entitlement
SWP	Delivery of SWP water to District	Drought and Endangered Species Act compliance	SWP estimates 60 percent average delivery in normal water year (DWR, 2010).

9. Proposed changes or additions to facilities and operations for the next 5 years:
The District intends to replace 7500 lineal feet of old water main in the next 5 years. An additional well and treatment plant have been partially constructed in 2010 and will be finished in 2011. A mile and a half of new transmission main has been started and will be completed in 2011. Upgrades to the District's SCADA system will continue for the next 5 years to better manage the water system.

C. Topography and Soils

1. Topography of the District and its impact on water operations and management:
The District service area is located on a narrow, moderately to gently-sloping alluvial plain which extends from the base of the Santa Ynez Mountains southward to the Pacific Ocean. Natural drainage of the plain is provided by Carpinteria Creek, Franklin Creek, Santa Monica Creek, Rincon Creek, and Toro Creek; the headwaters of each creek are located in the Santa Ynez Mountains.

The soils have been classified by the US Soil Conservation Service and are a combination of associations 1, 2, 3, and 7 type soils. The District is not aware of soil-related conditions or problems which may impact agriculture. See Appendix A for a soils map.

2. District soil association map (Agricultural only):
See Attachment A, District Soils Map

3. Agricultural limitations resulting from soil problems (Agricultural only):

Soil Problem	*Estimated Acres*	*Effect on Water Operations and Management*
Salinity	0	None
High-water table	0	None
High or low infiltration rates	0	None
Other (define)	0	None

D. Climate

1. General climate of the District service area:
The climate conditions of the District are Mediterranean-like in character. Summers are generally dry with mild temperatures, and winters are generally cool with light to moderate quantities of precipitation (predominantly rain). Average annual local rainfall is approximately 17.8 inches.

	Jan	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Annual*
Avg Precip. (a)	4.02	3.89	2.93	1.20	0.36	0.08	0.02	0.03	0.21	0.68	1.50	2.84	17.77
Avg Temp. (a)	53.8	55.1	56.4	58.7	60.6	63.4	66.6	67.5	66.6	63.4	58.9	54.9	60.5
Max. Temp. (a)	64.8	65.6	66.7	68.9	69.9	72.4	75.9	77.1	76.7	74.4	70.9	66.4	70.8
Min. Temp. (a)	42.9	44.6	46.1	48.5	51.3	54.3	57.3	57.9	56.4	52.5	46.9	43.4	50.2
ETo (b)	1.67	2.24	3.43	4.94	4.99	5.24	5.29	5.33	3.89	3.51	2.22	1.86	44.61

Notes: (a) Western Region Climate Center, Santa Barbara, Station No. 047902, 2011.
(b) Santa Barbara CIMIS, Station No. 107, 2011.

Weather station ID: see notes above *Data period: Year 1893 to Year* 2010

Average wind velocity: 3.0 mph *Average annual frost-free days:* 365

2. Impact of microclimates on water management within the service area:
Annual variation in climate conditions is minimal within the District. However, unique topographic conditions in the Gobernador Canyon area of the District can lead to frost conditions for approximately 5 days per year. Growers in this canyon area must be prepared to implement the appropriate frost protection measures to minimize the effects of frost on their crops. Many of the District's customers utilize extensive water conservation measures and irrigation methods to reduce water demands.

E. Natural and Cultural Resources

1. Natural resource areas within the service area:

Name	*Estimated Acres*	*Description*
Carpinteria Slough	215	Natural tidal wetlands, managed by UCSB

2. Description of District management of these resources in the past or present:
None

3. Recreational and/or cultural resources areas within the service area:

Name	*Estimated Acres*	*Description*
City, County, State, and Private Parks	110	9 parks, day use, camping, polo fields

F. Operating Rules and Regulations

1. Operating rules and regulations:
See Attachment B, District Rules and Regulations, 2010.

2. Water allocation policy (Agricultural only):
See Attachment B, District Rules and Regulations , 2010
Summary – During water shortages, available water may be limited by customer type, per California Law.

3. Official and actual lead times necessary for water orders and shut-off:
NA

4. Policies regarding return flows (surface and subsurface drainage from farms) and outflow):
NA

5. Policies on water transfers by the District and its customers:
See Attachment B, District Rules and Regulations, 2010
Summary – District Rule/Regulation No. 23: "A customer shall not resell or transfer any of the water received from the District to any other customer or person, or on other premises than

specified in their application for service, without the prior written consent of the District. Any such District consent shall be subject to the requirement that the customer defend, indemnify and hold the District harmless against any claims arising from or related to such resale."

If a member agency of the Cachuma Project has surplus water, it has the legal ability to transfer these supplies to another member agency. Transfers are handled by the Cachuma Operations and Maintenance Board (COMB).

G. Water Measurement, Pricing, and Billing

1. Agricultural Customers

a. Number of farms 381

b. Number of delivery points (turnouts and connections) 398

c. Number of delivery points serving more than one farm 0

d. Number of measured delivery points (meters and measurement devices) 398

e. Percentage of delivered water that was measured at a delivery point 100

f. Delivery point measurement device table (agricultural customers):

Measurement Type Positive Displacement	*Number*	*Accuracy (+/- %)*	*Reading Frequency (Days)*	*Calibration Frequency (Months)*	*Maintenance Frequency (Months)*
5/8"	0	98.5 - 101.5*	30	N/A**	as usage fluctuates ***
3/4"	20	98.5 - 101.5*	30	N/A**	as usage fluctuates ***
1"	55	98.5 - 101.5*	30	N/A**	as usage fluctuates ***
11/2"	71	98.5 - 101.5*	30	N/A**	as usage fluctuates ***
2"	221	98.5 - 101.5*	30	N/A**	as usage fluctuates ***
3"	30	98.5 - 101.5*	30	N/A**	as usage fluctuates ***
4"	1	98.5 - 101.5*	30	N/A**	as usage fluctuates ***
Total	398				

Notes:
* new meter accuracy (represents meter accuracy when installed)
** more cost effective to replace than repair / calibrate
*** billing software alerts to high / low reads and prompts investigation

2. Urban Customers

a. *Total number of connections:* 3,763

b. Total number of metered connections: 3,763

c. Total number of connections not billed by quantity: 0

d. Percentage of water that was measured at delivery point: 100

e. *Percentage of delivered water that was billed by quantity:* 100

f. Measurement device table (urban customers):

Meter Size and Type	*Number*	*Accuracy (+/-percentage)*	*Reading Frequency (Days)*	*Calibration Frequency (Months)*	*Maintenance Frequency (Months)*
5/8"	335	98.5 - 101.5*	30	N/A**	as usage fluctuates ***
3/4"	2,763	98.5 - 101.5*	30	N/A**	as usage fluctuates ***
1"	347	98.5 - 101.5*	30	N/A**	as usage fluctuates ***
11/2"	163	98.5 - 101.5*	30	N/A**	as usage fluctuates ***
2"	142	98.5 - 101.5*	30	N/A**	as usage fluctuates ***
3"	6	98.5 - 101.5*	30	N/A**	as usage fluctuates ***
4"	3	98.5 - 101.5*	30	N/A**	as usage fluctuates ***
6"	4	98.5 - 101.5*	30	N/A**	as usage fluctuates ***
Total	3,763				

Notes:
* new meter accuracy (represents meter accuracy when installed)
** more cost effective to replace than repair / calibrate
*** billing software alerts to high / low reads and prompts investigation

3. Agriculture and Urban Customers

a. Current year agriculture and /or urban water charges - including rate structures and billing frequency:

See Attachment C, for District's current water rates and charges.

b. Annual charges collected from customers (current year data):

Fixed Charges for agriculture customers				
	Charges ($ unit)	*Charge units ($/acre), ($/customer) etc.*	*Units billed during year (acres, customer) etc.*	*$ collected ($ times units)*
REQ	$18.15 / residence	ag residence	4,536	$82,328
BASIC Charge	$2.48 / meter equivalent	meter size	34,818	$86,849
STATE WATER	$18.34 / meter equivalent	meter size	34,818	$638,562
CIP Charge	$2.42 / HCF	avg monthly usage	54,432	$131,725
			TOTAL	**$938,965**

Notes:
Meter equivalent = 3/4" meter = 1.5 ME; 2" meter = 8 ME etc.
HCF = 100 cubic feet

Volumetric charges for agriculture customers				
	Charges ($ unit)	*Charge units ($/AF), ($/HCF), etc.*	*Units billed during year (AF, HCF) etc.*	*$ collected ($ times units)*
Irrigation	1.70 / HCF	$/HCF	689,032	$1,171,354
			TOTAL	**$1,171,354**

Notes:
HCF = 100 cubic feet

See Attachment D, District Sample Bills

Fixed Charges for urban customers				
	Charges ($ unit)	*Charge units ($/acre), ($/customer) etc.*	*Units billed during year (acres, customer) etc.*	*$ collected ($ times units)*
BASIC Charge	$2.48 / meter equivalent	meter size	94,122	$233,423
STATE WATER	$18.34 / meter equivalent	meter size	134,154	$2,460,384
CIP Charge	$2.42 / HCF	avg monthly usage	904,284	$2,188,367
			TOTAL	**$4,882,174**

Notes:
Meter equivalent = 3/4" meter = 1.5 ME; 2" meter = 8 ME etc.
HCF = 100 cubic feet

Volumetric charges for urban customers				
	Charges ($ unit)	*Charge units ($/AF), ($/HCF), etc.*	*Units billed during year (AF, HCF) etc.*	*$ collected ($ times units)*
M&I	3.00 / HCF	$/HCF	799,319	$2,397,957
M&I	3.85 / HCF	$/HCF	39,965	$153,865
M&I	4.85 / HCF	$/HCF	11,055	$53,617
			TOTAL	**$2,605,439**

Notes:
HCF = 100 cubic feet

See Attachment D, District Sample Bills

c. Water-use data accounting procedures:

The District maintains all records in a computer database. Customers can request a use history of 1 to 5 years (or longer if needed). Bills are mailed monthly to all customers.

H. Water Shortage Allocation Policies

1. Current year water shortage policies:

a. Attach District's current year water shortage policies or shortage response plan.

See Attachment E, District Water Shortage Contingency Plan

b. Specify how reduced water supplies are allocated:

The District's Water Shortage Contingency Plan includes the following allocation method for each customer type:

Agricultural	Percentage Reduction (vary by efficiency)
Residential	Percentage Reduction (can vary by occupants per household)
Commercial	Percentage Reduction
Industrial	Percentage Reduction
Public Authority	Percentage Reduction
New Customers	Estimate of similar uses apply
Development	no new services for new development during a declared water shortage

WATER USE RESTRICTION (ALLOTMENTS)

	Allotments		
User Type	**Stage I**	**Stage II**	**Stage III**
Agriculture	85%	70%	50%
Residential[(a)]	85%	70%	50%
Commercial	85%	70%	50%
Industrial	85%	70%	50%
Public Authority	85%	70%	50%

Note: (a) Exceptions will be made on a case by case basis for high occupancy dwellings.

The table above indicates the water allocated to each customer type by rationing stage during a declared water shortage.

Individual customer allotments are based on a five-year baseline period. This gives the District a more accurate view of the normal water needs of each customer and provides additional flexibility in determining allotments and reviewing appeals. However, no allotment may be greater than the amount used in the most recent year of the five-year base period.

The District Manager shall calculate each customer's allotment according to the established rationing allocation method. The allotment shall reflect seasonal patterns. Each customer shall be notified of their classification and allotment by mail before the effective date of the Water Shortage Emergency. New customers will be notified at the time the application for service is made. During a disaster, prior notice of allotment may not be possible; notice will be provided by other

means. Any customer may appeal the assigned water allotment on the basis of incorrect calculation or health and safety.

2. Current year policies that address wasteful use of water and enforcement methods:
See Attachment B, District's Rules and Regulations, Rule No. 28, which states the following:

"No customer shall provide water to any person, company or corporation other than the occupant or occupants of the premises of said customer, nor shall any customer knowingly permit leaks or waste of water.

If any customer willfully or negligently wastes water, the water may be shut off and the connection sealed by the District, and the water shall not be turned on again until a reconnection fee is paid by said customer to the District, in addition to accrued monthly service charges and fees for metered water use. The reconnection fee is provided in the District's annual fee table in (District's current water Rates and Charges)."

Section 2: Inventory of Water Resources

A. Surface Water Supply

1. Acre-foot amounts of surface water delivered to the water purveyor by each of the purveyor's sources:

See Section 5, Table 1

2. Amount of water delivered to the District by each of the District sources for the last 10 years:

See Section 5, Table 8

B. Ground Water Supply

1. Acre-foot amounts of ground water pumped and delivered by the District:

See Section 5, Table 2

2. Ground water basin(s) that underlies the service area:

Name	*Size (Square Miles)*	*Usable Capacity (AF)*	*Safe Yield (AF/Y)*
Carpinteria	12	170,000	5,000

3. Map of District-operated wells and managed ground water recharge areas

See Attachment A, District Map of Ground Water Facilities

4. Description of conjunctive use of surface and ground water

CVWD conducted a demonstration aquifer storage and recovery (ASR) project with its Headquarters Well Project in 2003 and will be conducting a demonstration project with its ASR-capable El Carro Well in 2012. Headquarters well prove to be a viable well to use for ASR.

Additionally, a review of groundwater and water supply management strategies was conducted in 2006 by Kennedy/Jenks Consultants that reviewed potential options including the use of ASR and other conjunctive use strategies.

COMB as part of its analysis on Water Supply Reliability of the South Coast Conduit suggested the use of the Carpinteria Groundwater Basin as a potential beneficial location for storage of excess Cachuma water to improve water supply reliability. The modeling of demands along the South Coast along with analysis of the condition of the South Coast Conduit highlighted the need for more reliable local supplies for all of the member agencies. No actual study was done by COMB to explore the idea of ASR in Carpinteria.

CVWD continues to pursue management strategies to improve Carpinteria Groundwater Basin's utilization and preservation as a sustainable water supply resource.

5. Ground Water Management Plan

See Attachment F, Ground Water Management Plan

6. Ground Water Banking Plan

The District participates in a cooperative arrangement for groundwater banking called “Short-Term Water Storage Partnership” (other participants include Rosedale-Rio Bravo Water Storage District and Irvine Ranch Water District), which the District has participated in since 2006. This program involves storage of SWP water in the groundwater basins managed by the Rosedale-Rio Bravo Water Storage District. This groundwater banking program increases the District's overall SWP supply reliability. Currently, the District has approximately 250 AF of deliverable water stored in this groundwater banking program and expects to have an additional 700 AF of deliverable water stored by the end of 2012. CVWD anticipates storing more water via this program between 2012 and 2035.

For more detail see Attachment G, Ground Water Banking Plan

C. Other Water Supplies

1. “Other” water used as part of the water supply - **NA**

D. Source Water Quality Monitoring Practices

1. Potable Water Quality (Urban only)
See Attachment H – District Consumer Confidence Report

2. Agricultural water quality concerns: *Yes* _____ *No* _____
(If yes, describe)

NA

3. Description of the agricultural water quality testing program and the role of each participant, including the District, in the program
NA

4. *Current water quality monitoring programs for surface water by source (Agricultural only)*

Analyses Performed	*Frequency*	*Concentration Range*	*Average*
NA			

Current water quality monitoring programs for groundwater by source (Agricultural only)

Analyses Performed	*Frequency*	*Concentration Range*	*Average*
NA			

E. Water Uses within the District

1. Agricultural
See Section 5, Table 5 - Crop Water Needs

2. Types of irrigation systems used for each crop in current year

Crop name	*Total Acres*	*Level Basin - acres*	*Furrow - acres*	*Sprinkler - acres*	*Low Volume - acres*	*Multiple methods - acres*	*Other (Hand watering) - acres*
Avocados	1,849	0	0	1,294	555	0	0
Lemons	207	0	0	145	62	0	0
Nursery (covered)	370	0	0	111	259	0	0
Nursery (open)	415	0	0	208	0	0	207
Cherimoya/other Fruit trees	185	0	0	130	55	0	0
Field	141	0	0	99	42	0	0
Other (<5%)	0	0	0	0	0	0	0
Total	**3,167**	**0**	**0**	**1,987**	**973**	**0**	**207**

Notes: all values rounded to nearest 1 acre.

3. Urban use by customer type in current year

Customer Type	*Number of Connections*	*AF*
Single-family	3,078	885
Single-family: landscape	26	33
Multi-family	314	445
Multi-family: landscape	7	10
Commercial	211	339
Commercial: landscape	7	5
Industrial	57	68
Industrial: landscape	2	5
Institutional*	35	90
Institutional: landscape	11	50
Agricultural (nonUSBR)	15	23
Unaccounted water (1)		201
Total	**3,763**	**1,952**

Notes:
Source: CVWD 2010
* District uses term - Public Authority
(1) Estimated value based on 55% of total unaccounted water (urban sales were 55% of total sales). This value not included in total.

4. Urban Wastewater Collection/Treatment Systems serving the service area – current year

Treatment Plant	*Treatment Level (1, 2, 3)*	*AF*	*Disposal to / uses*
Carpinteria Sanitary Dist.	2	1,900	Discharge to ocean
Total discharged to ocean and/or saline sink		1,900	

5. Ground water recharge/management in current year (Table 6)

Recharge Area	*Method of Recharge*	*AF*	*Method of Retrieval*
None	0	0	
	Total	**0**	

6. Transfers and exchanges into or out of the service area in current year (Table 6)

From Whom	*To Whom*	*AF*	*Use*
None	None	0	

7. Trades, wheeling, wet/dry year exchanges, banking or other transactions in current year (Table 6)

From Whom	*To Whom*	*AF*	*Use*
None	None	0	

8. Other uses of water in current year

Other Uses	*AF*
None	0

F. Outflow from the District (Agricultural only)

None.

1. Surface and subsurface drain/outflow in current year

Outflow point	*Location description*	*AF*	*Type of measurement*	*Accuracy (%)*	*% of total outflow*	*Acres drained*
None						

Outflow point	*Where the outflow goes (drain, river or other location)*	*Type Reuse (if known)*
None		

2. Description of the Outflow (surface and subsurface) water quality testing program and the role of each participant in the program

NA

3. Outflow (surface drainage & spill) Quality Testing Program

Analyses Performed	*Frequency*	*Concentration Range*	*Average*	*Reuse limitation?*
None				

Outflow (subsurface drainage) Quality Testing Program

Analyses Performed	*Frequency*	*Concentration Range*	*Average*	*Reuse limitation?*
None				

4. Provide a brief discussion of the District's involvement in Central Valley Regional Water Quality Control Board programs or requirements for remediating or monitoring any contaminants that would significantly degrade water quality in the receiving surface waters.

NA

G. Water Accounting (Inventory)

1. Water Supplies Quantified

- *a. Surface water supplies, imported and originating within the service area, by month (Table 1)*
- *b. Ground water extracted by the District, by month (Table 2)*
- *c. Effective precipitation by crop (Table 5)*
- *d. Estimated annual ground water extracted by non-District parties (Table 2)*
- *e. Recycled urban wastewater, by month (Table 3)*
- *f. Other supplies, by month (Table 1)*

2. *Water Used Quantified*

    a. *Agricultural conveyance losses, including seepage, evaporation, and operational spills in canal systems (Table 4) or*
    Urban leaks, breaks and flushing/fire uses in piped systems (Table 4)
    b. *Consumptive use by riparian vegetation or environmental use (none)*
    c. *Applied irrigation water - crop ET, water used for leaching/cultural practices (e.g., frost protection, soil reclamation, etc.) (Table 5)*
    d. *Urban water use (Table 6)*
    e. *Ground water recharge (Table 6)*
    f. *Water exchanges and transfers and out-of-District banking (Table 6)*
    g. *Estimated deep percolation within the service area (Table 6)*
    h. *Flows to perched water table or saline sink (none)*
    i. *Outflow water leaving the District (none)*
    j. *Other*

3. *Overall Water Inventory*
    a. *Table 6*

H. Assess Quantifiable Objectives:

Identify the Quantifiable Objectives that apply to the District (Planner, chapter 10) and provide a short narrative describing past, present and future plans that address the CALFED Water Use Efficiency Program goals identified for the District.

QO #	*QO Description*	*Past, Present & Future Plans*
None	None	None

Section 3: Best Management Practices (BMPs) for Agricultural Contractors

A. Critical Agricultural BMPs

1. Measure the volume of water delivered by the District to each turnout with devices that are operated and maintained to a reasonable degree of accuracy, under most conditions, to +/- 6%

All agricultural customers are metered.

Number of turnouts that are unmeasured or do not meet the standards listed above: 0

Number of measurement devices installed last year (2009): 3

Number of measurement devices installed this year (2010): 1

Number of measurement devices to be installed next year (2011): unknown

Types of Measurement Devices Being Installed	*Accuracy*	*Total Installed During Current Year*
Positive Displacement	98.5 - 101.5%	1

2. Designate a water conservation coordinator to develop and implement the Plan and develop progress reports:

Name: Bob McDonald *Title:* District Engineer

Address: 1301 Santa Ynez Ave, Carpinteria, CA, 93013

Telephone: 805-684-2816 *E-mail:* bob@cvwd.net

3. Provide or support the availability of water management services to water users:

See Attachment I, Notices of District Education Programs and Services Available to Customers.

a. On-Farm Evaluations:

1) On farm irrigation and drainage system evaluations using a mobile lab type assessment:

	Total in District	*# surveyed last year*	*# surveyed in current year*	*# projected for next year*	*# projected 2nd yr in future*
Irrigated acres	3,213	80	0	80	80
Number of farms	381	15	0	15	15

Audit records are available for review at the District office.

2) Timely field and crop-specific water delivery information to the water user:

The District will create a page on the District's website devoted to local CIMIS information. The District will advertise this new CIMIS page in the District's future newsletters and customer water bills. The District will complete this task within 12 months.

b. Real-time and normal irrigation scheduling and crop ET information:

Added link to DWR CIMIS website to District's web links page, and notified customers of new web link. District sends information to agriculture customers via direct mail regarding CIMIS data and benefits of ETo based irrigation.

c. Surface, ground, and drainage water quantity and quality data provided to water users:

See Attachment H, Consumer Confidence Report.

d. Agricultural water management educational programs and materials for farmers, staff, and the public:

Program	*Co-Funders (If Any)*	*Yearly Targets*
Green Gardner Program	SB County Water Agency	Flower growers, landscapers
Agriculture Committee		Farmers forum

See Attachment I for samples of provided BMP materials and notices

e. other

NA

4. Pricing structure - based at least in part on quantity delivered

Describe the quantity-based water pricing structure, the cost per acre-foot, and when it became effective:

All water billed by quantity. See Section 1.G.3 for additional details.

5. Evaluate and describe the need for changes in policies of the institutions to which the District is subject:

None identified.

6. Evaluate and improve efficiencies of District pumps:

Describe the program to evaluate and improve the efficiencies of the contractor's pumps:

District pumps are evaluated every year on a set schedule. Additionally, pump information is evaluated through the District's SCADA system. Pumps are operated via the SCADA system which monitors low use periods and time of use.

B. Exemptible BMPs for Agricultural Contractors

(See Planner, Chapter 2, Appendix C for examples of exemptible conditions)

1. Facilitate alternative land use:

Drainage Characteristic	*Acreage*	*Potential Alternate Uses*
High water table (<5 feet)	0	NA
Poor drainage	0	NA
Ground water Selenium concentration > 50 ppb	0	NA
Poor productivity	0	NA

Describe how the contractor encourages customers to participate in these programs.

2. Facilitate use of available recycled urban wastewater that otherwise would not be used beneficially, meets all health and safety criteria, and does not cause harm to crops or soils:

Sources of Recycled Urban Waste Water	*AF/Y Available*	*AF/Y Currently Used in District*
Carpinteria Sanitary District	1,900	0

Currently, the District is participating in a regional recycled water study being conducted by RMC Consultants. The Study is focusing on supply and potential demand of recycled water. The Carpinteria area does not currently have the infrastructure to supply, store, or deliver recycled water to any CVWD customers. It is the District's hope that the regional study will be a first step in developing a long-term vision to utilize recycled water for beneficial use within the CVWD service area.

3. Facilitate the financing of capital improvements for on-farm irrigation systems:

Funding source Programs	*How provide assistance*

The District currently has sufficient available water supplies at reasonable cost such that capital improvements are not needed. Area farmers have implemented on-farm irrigation improvements to improve water use efficiency. The District will include a brief summary of potential funding programs (national, state, local) for agricultural customers in upcoming newsletters.

4. Incentive pricing:

Structure of incentive pricing	*Related goal*
None	

The District only provides 42% of agricultural water demands within the District. The District does not currently have block rate structure for agriculture customers. The District must maintain a price for agricultural water that is reasonable to the farmers in order to encourage sales of surface water supplies (to minimize impact on local groundwater supplies), yet also encourage efficient water use.

5. a) Line or pipe ditches and canals:

Canal/Lateral (Reach)	*Type of Improvement*	*Number of Miles in Reach*	*Estimated Seepage (AF/Y)*	*Accomplished/ Planned Date*

Complete - fully piped system.

b) Construct regulatory reservoirs:

Reservoir Name	*Annual Spill in Section (AF/Y)*	*Estimated Spill Recovery (AF/Y)*	*Accomplished/ Planned Date*

The District maintains a fully piped and pressurized system. Customers receive water on-demand. No regulatory reservoirs are needed.

6. Increase flexibility in water ordering by, and delivery to, water users:
Complete - on-demand system.

7. Construct and operate District spill and tailwater recovery systems:

Distribution System Lateral	*Annual Spill (AF/Y)*	*Quantity Recovered and reused (AF/Y)*
	0	0
Total	0	0

Complete - fully piped system.

Drainage System Lateral	*Annual Drainage Outflow (AF/Y)*	*Quantity Recovered and reused (AF/Y)*
	0	0
Total	0	0

Complete - no outflow from farms.

8. Plan to measure outflow:

Total # of outflow (surface) locations/points 0
Total # of outflow (subsurface) locations/points 0
Total # of measured outflow points 0
Percentage of total outflow (volume) measured during report year 0

Identify locations, prioritize, determine best measurement method/cost, submit funding proposal:

Location & Priority	*Estimated cost (in $1,000s)*				
	2009	*2010*	*2011*	*2012*	*2013*
None	0	0	0	0	0

9. Optimize conjunctive use of surface and ground water:

CVWD conducted a demonstration aquifer storage and recovery (ASR) project with its Headquarters Well Project in 2003 and will be conducting a demonstration project with its ASR-capable El Carro Well in 2012. Headquarters well proved to be a viable well to use for ASR.

Additionally, a review of groundwater and water supply management strategies was conducted in 2006 by Kennedy/Jenks Consultants that reviewed potential options including the use of ASR and other conjunctive use strategies.

COMB as part of its analysis on Water Supply Reliability of the South Coast Conduit suggested the use of the Carpinteria Groundwater Basin as a potential beneficial location for storage of excess Cachuma water to improve water supply reliability. The modeling of demands along the South Coast along with analysis of the condition of the South Coast Conduit highlighted the need for more reliable local supplies for all of the member agencies. No actual study was done by COMB to explore the idea of ASR in Carpinteria.

CVWD continues to pursue management strategies to improve Carpinteria Groundwater Basin's utilization and preservation as a sustainable water supply resource. Conjunctive use of the basin with surface water supplies is practiced using more groundwater in dry years and more surface water in wet years.

10. Automate canal structures:
Complete - fully piped system with SCADA controls.

11. Facilitate or promote water customer pump testing and evaluation:
See Attachment I, Notices of BMP Education Programs and Services Available to Customers

12. Mapping

GIS maps	*Estimated cost (in $1,000s)*				
	2009	*2010*	*2011*	*2012*	*2013*
Layer 1 – Distribution system	Complete				
Layer 2 – Drainage system	Complete				
Suggested layers:					
Layer 3 – Ground water information	100,000	100,000	50,000		
Layer 4 – Soils map	NA				
Layer 5 – Natural & cultural resources	NA				
Layer 6 – Problem areas	NA				

Source: District Engineer, 2011

C. Provide a 3-Year Budget for Implementing BMPs

1. Amount actually spent during 2010.

BMP #		BMP Name	2010 Actual Expenditure (not including staff time)	Staff Hours
A	1	Measurement	$973	2
	2	Conservation staff	$0	0
	3	On-farm evaluation /water delivery info	$0	0
		Irrigation Scheduling	$0	0
		Water quality	$31,064	194
		Agricultural Education Program	$48	40
	4	Quantity pricing	$0	0
	5	Policy changes	$0	0
	6	Contractor's pumps	$0	0
B	1	Alternative land use	$0	0
	2	Urban recycled water use	$0	0
	3	Financing of on-farm improvements	$0	0
	4	Incentive pricing	$0	0
	5	Line or pipe canals/install reservoirs	$0	0
	6	Increase delivery flexibility	$0	0
	7	District spill/tailwater recovery systems	$0	0
	8	Measure outflow	$0	0
	9	Optimize conjunctive use	$0	0
	10	Automate canal structures	$0	0
	11	Customer pump testing	$0	0
	12	Mapping	$4,000	0
		Total	$32,485	236

2. Projected budget summary for 2011.

BMP #		BMP Name	2011 Budgeted Expenditure (not including staff time)	Staff Hours
A	*1*	*Measurement*	$983	2
	2	*Conservation staff*	$0	0
	3	*On-farm evaluations/water delivery info*	$0	0
		Irrigation Scheduling	$0	0
		Water quality	$31,064	194
		Agricultural Education Program	$460	40
	4	*Quantity pricing*	$0	0
	5	*Policy changes*	$0	0
	6	*Contractor's pumps*	$0	0
B	*1*	*Alternative land use*	$0	0
	2	*Urban recycled water use*	$0	0
	3	*Financing of on-farm improvements*	$0	0
	4	*Incentive pricing*	$0	0
	5	*Line or pipe canals/install reservoirs*	$0	0
	6	*Increase delivery flexibility*	$0	0
	7	*District spill/tailwater recovery systems*	$0	0
	8	*Measure outflow*	$0	0
	9	*Optimize conjunctive use*	$0	0
	10	*Automate canal structures*	$0	0
	11	*Customer pump testing*	$0	0
	12	*Mapping*	$0	0
		Total	$32,507	236

3. Projected budget summary for 2012.

BMP #		BMP Name	2012 Budgeted Expenditure (not including staff time)	Staff Hours
A	1	Measurement	$993	2
	2	Conservation staff	$0	0
	3	On-farm evaluations/water delivery info	$0	0
		Irrigation Scheduling	$0	0
		Water quality	$30,064	194
		Agricultural Education Program	$460	40
	4	Quantity pricing	$0	0
	5	Policy changes	$0	0
	6	Contractor's pumps	$1000	40

BMP #		BMP Name	Budgeted Expenditure (not including staff time)	Staff Hours
B	1	Alternative land use	$0	0
	2	Urban recycled water use	$0	0
	3	Financing of on-farm improvements	$0	0
	4	Incentive pricing	$0	0
	5	Line or pipe canals/install reservoirs	$0	0
	6	Increase delivery flexibility	$0	0
	7	District spill/tailwater recovery systems	$0	0
	8	Measure outflow	$0	0
	9	Optimize conjunctive use	$0	0
	10	Automate canal structures	$0	0
	11	Customer pump testing	$0	0
	12	Mapping	$4,500	0
		Total	$37,017	236

Section 4: Best Management Practices for Urban Contractors

A. Urban BMPs

1. *Utilities Operations*

1.1 Operations Practices:

- District staff includes a trained conservation coordinator.
- Enactment and enforcement of a Water Waste Ordinance prohibiting gutter flooding, single pass cooling systems in new connections, nonrecirculating systems in all new conveyer car wash and commercial laundry systems, and nonrecycling decorative water fountains.

1.2 Water Loss Control:

- Annually complete a prescreening system audit to determine the need for a full-scale system audit. The prescreening system audit is calculated as follows:
  i) Determine metered sales;
  ii) Determine other system verifiable uses;
  iii) Determine total supply into system;
  iv) Divide metered sales plus other verifiable uses by total supply into the system. If this quantity is less than 0.9, a full-scale system audit is indicated.
- When indicated, the District will complete a water audit of its distribution system using methodology consistent with that described in AWWA's "Water Audit and Leak Detection Guidebook"
- The District also: advises customers whenever it appears possible that leaks exist on the customer's side of the meter; performs distribution system leak detection when warranted and cost-effective; and repairs leaks when found.

1.3 Metering:

All customers metered.

1.4 Pricing:

- All water billed by quantity. See Section 1.G.3 for additional details.

2. *Education:*

2.1 Public Information Programs

Provide speakers to employees, community groups and the media; using paid and public service advertising; using bill inserts; providing information on customers' bills showing use in gallons per day for the last billing period compared to the same period the year before; providing public information to promote water conservation practices; and coordinating with other government agencies, industry groups, public interest groups, and the media.

2.2 School Education

Collaborate with school districts and private schools in the District's service area to provide instructional assistance, educational materials, and classroom presentations that identify urban, agricultural, and environmental issues and conditions in the local watershed. Education materials shall meet the state education framework requirements, and grade appropriate materials shall be distributed to grade levels K-3, 4-6, 7-8, and high school.

3. *Residential:*

- Contact via letter or telephone single-family and multi-family residential customers.
- Provide surveys to single-family and multi-family units residential customers
- Instruct customers in meter reading
- Check for leaks, including toilets/faucets and, if necessary, provide toilet flappers/faucet washers.
- Check showerhead and aerator flow rates, and provide low-flow models, as necessary
- Check toilet flow rates and, when appropriate, recommend a ULFT replacement.
- Check irrigation system for leaks / overlap and determine timer functioning and current schedule.
- Measure landscaped area and develop irrigation schedule
- Provide customer with evaluation results, water saving recommendations and other information
- Distribute retrofit kits including showerheads and faucet aerators to single family and multi-family units.
- Track the location, type and number of retrofits completed, devices distributed, and program costs.
- Support rebate program via Santa Barbara County for high-efficiency washing machines.
- Support for local, state, and federal legislation to improve efficiency standards for washing machines.
- The District is currently reviewing the cost effectiveness of this BMP. If the BMP is found not to be cost effective then an exception will be filed.
- Programs shall be at least as effective as requiring toilet replacement at time of resale.

4. *CII:*

- Identify commercial, industrial, and institutional customers by SIC codes.
- Rank commercial, industrial, and institutional customers according to annual water use.
- Provide audits to 34 Commercial, Industrial and Institutional accounts between 2003-2012
- Replace the targeted number of high-water-using toilets with ULFTs.
- Monitor the effectiveness of implemented audit recommendations
- Identify incentives programs, which would encourage the implementation of cost-effective audit recommendations that were not implemented.

5. *Landscape:*

- Provide non-residential customers with support and incentives to improve their landscape water use efficiency.

Accounts with Dedicated Irrigation Meters:

- The landscaped area at accounts with dedicated irrigation meters will be measured and ETo-based water use budgets equal to no more than 100% of reference evapotranspiration per square foot of landscape area will be assigned to each account. There are no landscape meters in the District.
- Notices will be provided each billing cycle to accounts with water use budgets showing the relationship between the budget and actual consumption

Mixed-Use Meters or Not Metered:

- Mixed use CII accounts with landscaping will be identified.
- A strategy targeting and marketing large landscape water use surveys to accounts with mixed-use meters will be developed. The District will conduct landscape water audits.
- Cost-effective measures will be identified and offered such as:
  i. landscape water use analysis/survey;
  ii. Voluntary water use budgets;
  iii. Installation of dedicated landscape meters;
  iv. Training (multi-lingual where appropriate) in landscape maintenance, irrigation system maintenance, and irrigation system design;
  v. financial incentives to improve irrigation system efficiency such as loans, rebates, and grants for the purchase and/or installation of water efficient irrigation systems;
  vi. Follow-up water use analyses/surveys with a letter; phone call, or site visit where appropriate.
- Survey elements will include: measurement of landscape area; measurement of total irrigable area; irrigation system check and distribution uniformity analysis; review or develop irrigation schedules, as appropriate; provision of a customer survey report and information packet.

New or Change of Service Accounts:

- New customers and change-of-service CII customer accounts will be provided information on climate-appropriate landscape design and efficient irrigation equipment/ management.

B. Provide a 3-Year Budget for Expenditures and Staff Effort for BMPs

1. Amount actually spent during 2010.

Year 2010 BMP # BMP Name	2010 Actual Expenditures (not including staff hours)	Staff Hours
1. Utilities Operations		
1.1 Operations Practices	$481	60
1.2 Water Loss Control	$0	116
1.3 Metering	$0	0
1.4 Pricing	$0	0
2. Education		
2.1 Public Information Programs	$2,776	260
2.2 School Education	$427	86
3. Residential	$1,933	300
4. CII	$38	60
5. Landscape	$750	180
Total	$6,405	1,062

2. Projected budget summary 2011 .

Year 2011 BMP #	BMP Name	2011 Projected Expenditures (not including staff hours)	Staff Hours
1.	Utilities Operations		
	1.1 Operations Practices	$0	60
	1.2 Water Loss Control	$4,000	116
	1.3 Metering	$0	0
	1.4 Pricing	$0	0
2.	Education		
	2.1 Public Information Programs	$3,600	367
	2.2 School Education	$540	96
3.	Residential	$4,300	300
4.	CII	$3,000	60
5.	Landscape	$1,800	109
	Total	$17,240	1108

3. Projected budget summary for 2012.

Year 2012 BMP #	BMP Name	2012 Projected Expenditures (not including staff hours)	Staff Hours
1.	Utilities Operations		
	1.1 Operations Practices	$2400	60
	1.2 Pricing	$0	0
	1.3 Metering	$0	0
	1.4 Water Loss Control	$4,000	116
2.	Education		
	2.1 Public Information Programs	$3,600	350
	2.2 School Education	$540	76
3.	Residential	$4,300	300
4.	CII	$3,000	60
5.	Landscape	$1,800	120
	Total	$17,240	1082

Section 5: USBR Water Inventory Tables

Year of Data	2010	**Enter data year here**

Table 1

Surface Water Supply

2010 Month	**Federal Ag Water** (acre-feet)	**Federal non-Ag Water.** (acre-feet)	**State Water** (acre-feet)	**Local Water** (acre-feet)	**Other Water (define)** (acre-feet)	**Upslope Drain Water** (acre-feet)	**Total** (acre-feet)
Method	M2	M2					
January	23	46	0	0	0	0	69
February	9	19	0	0	0	0	28
March	51	76	0	0	0	0	127
April	85	114	0	0	0	0	199
May	155	153	0	0	0	0	308
June	181	223	0	0	0	0	404
July	197	213	0	0	0	0	410
August	246	237	0	0	0	0	484
September	231	231	0	0	0	0	462
October	115	136	0	0	0	0	251
November	88	138	0	0	0	0	226
December	127	62	0	0	0	0	189
TOTAL	**1,509**	**1,649**	**0**	**0**	**0**	**0**	**3,157**

Notes:

All values rounded to nearest 1 AF.

M2 = Measured summation from calibrated measuring devices.

Source: CVWD Records

Table 2

Ground Water Supply

2010 Month	**District Groundwater** (acre-feet)	**Private Urban Groundwater** (acre-feet) (1)	**Private Agric Groundwater** (acre-feet) (1)
Method	M2		O1
January	154	0	101
February	135	0	84
March	120	0	106
April	102	0	172
May	139	0	215
June	16	0	228
July	16	0	284
August	12	0	293
September	5	0	254
October	15	0	196
November	15	0	144
December	14	0	120
TOTAL	**742**	**0**	**2,197**

Notes:

All values rounded to nearest 1 AF.

O1 = estimate of water necessary to grow crops – District sales per account

M2 = Unknown accuracy of COMB / District meters

Source: CVWD Records

(1) normally estimated

Private Agriculture data broken down by 5-years of District Ag sales by month (% District sales for month Y x total private extraction)

Table 3

Total Water Supply

2010 Month	Surface Water Total (acre-feet)	District Groundwater (acre-feet)	Recycled M&I Wastewater (acre-feet)	Total District Water Supply (acre-feet)
Method				
January	69	154	0	223
February	28	135	0	163
March	127	120	0	247
April	199	102	0	301
May	308	139	0	447
June	404	16	0	420
July	410	16	0	426
August	484	12	0	496
September	462	5	0	467
October	251	15	0	265
November	226	15	0	241
December	189	14	0	203
TOTAL	**3,157**	**742**	**0**	**3,899**

Notes:
All values rounded to nearest 1 AF.
* Recycled M&I Wastewater is treated urban wastewater that is used for agriculture.
Source: CVWD Records

Table 4

Distribution System

2010 Area or Line	Length (feet)	Leaks (acre-feet) (1)	Breaks (acre-feet) (2)	Flushing/Fire (acre-feet) (2)	Total (acre-feet)
11,275.95	442,503.2	182.5	0	0	182.5
TOTAL	**442,503.2**	**182.5**	**0**	**0**	**182.5**

Notes:
(1) 182.5 AF is 50% of the total water loss for the year representing actual loss as opposed to apparent losses.
(2) No data available
Source: CVWD Records

Table 5

Crop Water Needs

2010 Crop Name	Area (crop acres)	Crop ET (AF/Ac)	Leaching Requirement (AF/Ac)	Cultural Practices (AF/Ac)	Effective Precipitation (AF/Ac)	Crop Water Use (acre-feet)
avocado	1,849	2.22	0.0	0.0	1.1	2,071
lemon	207	1.60	0.0	0.0	1.1	104
cherimoya / other fruit	185	2.60	0.0	0.0	1.1	278
covered nursery	370	2.61	0.0	0.0	0.0	966
field crops	141	2.60	0.0	0.1	1.7	141
open nursery	415	2.10	0.0	0.0	1.1	415
other	0	0.00	0.0	0.0	0.0	0
Crop Acres	**3,167**					**3,974**

Notes:
Source: CVWD Records, Cal Poly ITRC, CVWD 2010 Land USE study
Total Irrig. Acres 3,167 (If this number is larger than your known total, it may be due to double cropping)

Table 6

2010 District Water Inventory

Water Supply	Table 3		3,899	44.61	3.7175
Groundwater recharge	(intentional - ponds, injection)	minus	0		
Leaks	Table 4	minus	183		
Breaks	Table 4	minus	0		
Flushing / Fire	Table 4	minus	0		
Transfers/trades/wheeling		**plus/minus**	0		
Water Available for sale to customers			3,717		
2010 Actual Agricultural Water Sales	From District Sales Records		1,582		
Private Groundwater	Table 2	plus	2,197		
Crop Water Needs	Table 5	minus	3,974		
Drainwater outflow	(tail and tile not recycled)	minus	0		
Percolation from Agricultural Land	(calculated)		(195)		
2010 M&I Actual Water Sales	From District Records		1,952		
Inside Use	Feb urban use x 12		1,223		
Landscape / Outside Use	(calculated)		729		

Source: CVWD Records

Table 7

~~*Influence on Groundwater and Saline Sink*~~

Not applicable

Table 8

Annual Water Quantities Delivered Under Each Right or Contract

Year	Federal Ag Water (acre-feet)	Federal non-Ag Water. (acre-feet)	State Water (acre-feet)	Local Water (acre-feet)	Other Water (define) (acre-feet)	District Groundwater (acre-feet)	Total (acre-feet)
2001	1,504	1,993	0	0	0	84	3,581
2002	1,742	2,032	0	0	0	663	4,437
2003	1,434	1,740	600	0	0	446	4,220
2004	1,213	1,437	648	0	0	1,264	4,562
2005	1,732	1,978	0	0	0	879	4,589
2006	1,408	1,311	0	0	0	1,142	3,861
2007	1,364	1,369	200	0	0	1,340	4,273
2008	1,329	1,387	717	0	0	1,074	4,507
2009	1,360	1,476	0	0	0	1,488	4,324
2010	1,509	1,649	0	0	0	742	3,899
Total	**14,594**	**16,372**	**2,165**	**0**	**0**	**9,122**	**42,253**
Average	**1,459**	**1,637**	**217**	**0**	**0**	**912**	**4,225**

Source: CVWD Records 2001 - 2010 inclusive

Method Definitions:

M1	Measured summation from calibrated measuring devices, accurate to within +/- 6 percent.
M2	Measured summation from calibrated measuring devices.
M3	Measured summation from measuring devices.
C1	Calculated (more than summation) using information from calibrated devices (such as the difference between measurements upstream and down stream of diversion).
C2	Calculated using information from measuring devices.
C3	Calculated using estimates from pump run-times and pump efficiency.
E1	Estimated using measured information from similar conditions.
E2	Estimated using historical information.
E3	Estimated using observation.
O1	Other (attach a note with descriptions of other methods used).

RESOLUTION NUMBER 953

RESOLUTION OF THE BOARD OF DIRECTORS OF THE CARPINTERIA VALLEY WATER DISTRICT (CVWD) ADOPTING A WATER MANAGEMENT PLAN

WHEREAS, Section 210 of the Reclamation Reform Act of 1982 requires districts with repayment or water supply contracts to develop and maintain water conservation plans containing definite goals, appropriate water conservation measures, and time schedules for meeting conservation objectives; and

WHEREAS, CVWD is a federal water contractor by its Member Unit Contract with the Santa Barbara County Water Agency, which in turn has a Master Contract with the United States Department of the Interior, Bureau of Reclamation (USBR); and

WHEREAS CVWD developed and adopted a Water Conservation Plan on December 15, 1993 consistent with the requirements of USBR; and

WHEREAS CVWD revised and updated its Water Conservation Plan consistent with USBR's 1999 Criteria for Evaluating Water Management Plans and prepared a Water Management Plan dated December 2000; and

WHEREAS CVWD revised and updated its Water Management Plan dated December 2000 consistent with USBR requirements in the 2008 Standard Criteria;

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

The 2010 Water Management Plan dated July 2012 is hereby adopted.

PASSED, APPROVED AND ADOPTED by the Board of Directors of the Carpinteria Valley Water District on the 24th day of October, 2012 by the following roll call vote:

AYES: LIEBERKNECHT, OROZCO, ROBERTS, VAN WINGERDEN
NAYES: NONE
ABSENT: NONE
ABSTENTIONS: NONE

[SEAL]

APPROVED:

June Van Wingerden, Board President

ATTEST:

Charles B. Hamilton, Board Secretary